# Wilshire

# FT Wilshire 5000 Index Series

Index Methodology

March 2023

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## 1 Introduction

#### 1.1 The FT Wilshire 5000 Series

The FT Wilshire 5000 Index is a comprehensive, float adjusted measure of the U.S. stock market, designed to reflect the performance of all publicly traded U.S. equity securities that have readily available prices. Size Indexes are maintained for mega-cap, mid-cap, small-cap and micro-cap segments, and combinations thereof. This is illustrated in the figure below.

	FT Wilshire 5000 (FTW5000)		
	FT Wilshire Mega Cap Index (FTWUSG)	FT Wilshire 2500 Index (FTW2500)	FT Wilshire Large Cap Index
gments	FT Wilshire Mid-Cap Index (FTWUSD)		(FTWUSL)
Size Segments	FT Wilshire Small-Cap Index (FTWUSS)		
	FT Wilshire Micro-Cap Index (FTWUSO)		

Price and total return indexes are calculated for all member indexes. The reinvestment of all dividend payments is reflected in the total-return indexes at the close on the ex-dividend date but is not reflected in the price indexes. Only special dividends from non-operating income affect the price indexes.

Indexes are calculated in USD and variants converted to GBP, EUR and JPY (using WM/Reuters 4pm London time exchange rates) are provided in index product files. The algorithm used for the calculation of the indexes is set out in the Wilshire Indexes Equity Index Calculation and Corporate Events Guide.

#### 1.1.1 Relationship to FT Wilshire Global Equity Market Series (GEMS)

The indexes in the FT Wilshire 5000 series and the FT Wilshire Global Equity Market Series (GEMS) follow the same index methodology in so far as is practical but with the following exceptions. First, only stocks assigned a US nationality (as per Section 2.3) that trade on an eligible US exchange (as per Section 2.4) are eligible for inclusion in the FT Wilshire 5000 series. Second, the allocation of stocks to size segments and the consequent determination of full and float capitalization inclusion levels (as per Section 3.3.3) in the FT Wilshire 5000 is undertaken only on the constituents of the FT Wilshire 5000 whereas the allocation of US stocks to size segments in the FT Wilshire GEMS is undertaken on all stocks to which a US nationality has been assigned.

Consequently, the FT Wilshire 2500 index (which consists of large- and small-cap companies) closely approximates the subset of the US components of the FT Wilshire Global Equity Market Series that trade on an eligible US exchange. Minor differences in the composition of the FT Wilshire 2500 and the subset of US stocks in the FT Wilshire GEMS with a US listing may occasionally arise because of the difference in inclusion levels derived from the two size banding procedures. For the avoidance of doubt, the constituents of the FT Wilshire 5000 series are determined by these index rules, and the US constituents of the GEMS index are determined by the FT Wilshire GEMS methodology.

#### 1.2 base bate and vale

#### 1.2.1 FT Wilshire 5000

For the purposes of providing a pro-forma back history of the index, an inception date for the FT Wilshire 5000 index was set at April 30, 2004. The values for the FT Wilshire 5000 indexes were set to be the same as those calculated for the equivalent Wilshire 5000 full-capitalization (non-float-adjusted) indexes. The historical full-market capitalization Wilshire 5000 indexes were chain-linked to that day's float-adjusted FT Wilshire 5000 indexes.

Histories for the FT Wilshire 5000 indexes are available from September 1996. Prior to that date, the published returns of the Wilshire 5000 full-capitalization indexes, serve as the historical track records for both the float-adjusted and full-cap series with data beginning on December 31, 1970.

#### 1.2.2 FT Wilshire Size Segment Indexes

All price-return and total-return versions of the size segment indexes have a base value of 5000 and a base date of December 31, 2020. Back-cast, historical data for all indexes are available daily back to September 1996.

The constituents of the FT Wilshire 5000 are drawn from all publicly traded US equity securities that have readily available prices. To be included in the FT Wilshire 5000 Index Series, an issue must satisfy the following eligibility criteria.

## 2.1 Eligible Company Types

With effect from the March 2023 reconstitution

The following company types are deemed ineligible for the FT Wilshire 5000 index series: Limited Liability Companies (LLCs), Limited Partnerships (LPs and LLPs), Business Development Companies (BDCs), Special Purpose Acquisition Companies (SPACs) (until such time as they consummate an acquisition), closed end investment companies, royalty trusts.

## 2.2 Eligible Security Types

Common stocks and REITs are eligible for inclusion in the FT Wilshire 5000 index series.

The following security types are not eligible for inclusion in the Index Universe:

- Mutual funds, ETFs, preference shares and equity derivatives
- Bulletin board issues
- Pink sheet stocks.

#### 2.2.1 Line-by-Line Inclusion

With effect from the September 2022 reconstitution

All securities are tested for eligibility for inclusion in the index in their own right. Companies with multiple share classes no longer have these share classes aggregated into the primary issue for index valuation purposes.

## 2.3 US Nationality

To be eligible for inclusion in the FT Wilshire 5000 Index Series, a company must be assigned a US nationality.

#### 2.3.1 General Rules

Companies are assigned to a single country. In general, the nationality assignment is based on the company's country of incorporation, the location of their headquarters and the location of their primary listing. These rules are summarized in the table below.

Incorporation	Headquarters	Primary Listing	Nationality
А	А	А	А
А	А	В	Α
А	В	А	А
А	В	В	В
А	В	С	B or C*

<sup>\*</sup> The choice between B and C will be made following consideration of other factors including the nationality and location of the company's directors and senior management, the location of its production assets and revenue, and the company's history and heritage.

#### 2.3.2 Benefit Incorporation Countries

If the company is incorporated in a "Benefit Incorporation country" (BIC), the following rules apply. See Appendix A for a list of countries considered to constitute benefit incorporations.

Incorporation	Headquarters	Primary Listing	Nationality
Benefit Incorporation	А	А	Α
Benefit Incorporation	А	В	A or B*
Benefit Incorporation	Benefit	В	В

<sup>\*</sup> The choice between A and B will be made following consideration of other factors including the nationality and location of the company's directors and senior management, the location of its production assets and revenue, and the company's history and heritage.

#### 2.3.3 US Multi-nationals

Several large, US multi-national companies have chosen Ireland as their country of incorporation, and sometimes also for their global headquarters, primarily for the tax advantages conferred. The following rules apply in these circumstances.

Incorporation	Headquarters	Primary Listing	Nationality
Ireland	US	US	US
Ireland	А	US	US
Ireland	Ireland	US	US or Ireland*

<sup>\*</sup>The choice between the US and Ireland will be made following consideration of other factors including the nationality and location of the company's directors and senior management, the location of its production assets and revenue, and the company's history and heritage.

#### 2.3.4 Chinese Companies

Chinese companies may choose to incorporate outside of mainland China, primarily in Hong Kong or a Benefit Incorporation Country. This includes state-controlled Chinese entities (Red-Chips) and privately controlled Chinese entities (P-Chips) that list in Hong Kong, N-shares that list in New York, and S-Chips that list in Singapore. The following rules apply to these companies.

Incorporation	Headquarters	Primary Listing	Nationality
Hong Kong	China	Hong Kong	China or Hong Kong*
Benefit Incorporation	China	Hong Kong	China
Benefit Incorporation	Hong Kong	Hong Kong	China or Hong Kong*
А	China	US	China
А	China	Singapore	China
Singapore	China	Singapore	China or Singapore*

\* The choice between China and Hong Kong or between China and Singapore will be based on further analysis, including analysis of the location of the company's production assets and the source of its revenues.

#### 2.3.5 Taiwanese Companies

Taiwanese companies may locate their headquarters in mainland China for operational reasons. The following rules apply to these companies.

Incorporation	Headquarters	Primary Listing	Nationality
Taiwan	China	Taiwan	Taiwan
Benefit Incorporation	China	Taiwan	Taiwan

## 2.4 Eligible Exchanges

In addition to being assigned a US nationality through Section 2.5, securities must trade on one or more of the following exchanges/market segments to be eligible for inclusion in the FT Wilshire 5000 Index Series.

Exchange	Sector
NASDAQ	Capital Market
NASDAQ	Global Select
NASDAQ	Global Market
New York Stock Exchange	NYSE
NYSE American	NYSE American
NYSE Arca	NYSE Arca
CBOE BZX US Equities Exchange	Main Board

## 3 Semi-Annual Index Reconstitution

The FT Wilshire 5000 Index Series is reconstituted semi-annually in March and September according to the procedures set out below.

#### 3.1 Data Cut-Off Date

The data cut-off date is the last business day (Monday to Friday only) of the month prior to the reconstitution month. Reconstitution changes are implemented after the close of business on the third Friday of the reconstitution month.

#### 3.2 Index Universe

The Index Universe is comprised of all the eligible securities (according to Section 2) at the cut-off date.

### 3.3 Size Segments

Companies are assigned to mega-cap, mid-cap, small-cap and micro-cap size segments according to their full (non-floatadjusted) market capitalization.

#### 3.3.1 Company Percentile Ranking

The full market capitalization weight of each company is calculated by aggregating the capitalization of all the company's eligible securities using prices and shares-outstanding data as of the cut-off date. The total capitalization of all eligible companies is calculated and, if any company contributes more than 10% to the total capitalization, the capitalization of that company is capped at 10% of the total capitalization.

The companies are ranked by their full market capitalization (capped if necessary) in descending order and, for each company, the cumulative full market capitalization weight (after capping) of all the preceding (larger) companies in the ranking is calculated as a percentage of the total full market capitalization. Companies are then allocated to size segments as defined in Section 3.3.3.

#### 3.3.2 Size Segments

For companies currently not in the index:

- Companies ranked in the top 70% are assigned to the mega-cap size segment,
- Companies ranked below 70% but above 85% are assigned to the mid-cap size segment,
- Companies ranked below 85% but above 98% are assigned to the small-cap size segment,
- Companies ranked below 98% are assigned to the micro-cap size segment.

For existing companies in the index:

- Companies currently in the mega-cap size segment have their post-reconstitution size band determined as follows.
  - The following companies remain in the mega-cap size segment:
    - Companies ranked in the top 70% of the eligible universe,
    - Companies ranked between 70-75% for fewer than three successive reconstitutions.
  - The following companies are assigned to the mid-cap size segment:
    - Companies ranked between 75-85%,
    - Companies ranked between 70-75% for three successive reconstitutions.
  - The following companies are assigned to the small-cap size segment:
    - Companies ranked between 85-98%.
  - The following companies are assigned to the micro-cap size segment:
    - Companies ranked below 98%.
- Companies currently in the mid-cap size segment have their post-reconstitution size band determined as follows.
  - The following companies are assigned to the mega-cap size segment:
    - Companies ranked in the top 65% of the eligible universe,

- Companies ranked between 65-70% for three successive reconstitutions.
- The following companies remain in the mid-cap size segment:
  - Companies ranked between 70-85%,
  - Companies ranked between 65-70% for fewer than three successive reconstitutions,
  - Companies ranked between 85-89% for fewer than three successive reconstitutions provided they meet the minimum free-float market capitalization requirement for the mid-cap size segment (Section 3.4.1).
- The following companies are assigned to the small-cap size segment:
  - Companies ranked between 89-98%,
  - Companies ranked between 85-89% for three successive reconstitutions,
  - Companies ranked between 85-89% for fewer than three reconstitutions that do not meet the minimum free float market capitalization requirement for the mid-cap size segment.
- The following companies are assigned to the micro-cap size segment:
  - Companies ranked below 98%.
- Companies currently in the small-cap size segment have their post-reconstitution size band determined as follows.
  - The following companies are assigned to the mega-cap size segment:
    - Companies ranked in the top 70% of the eligible universe.
  - The following companies are assigned to the mid-cap size segment:
    - Companies ranked between 70-81%,
    - Companies ranked between 81-85% for three successive reconstitutions.
  - The following companies remain in the small-cap size segment:
    - Companies ranked between 85-98%,
    - Companies ranked between 81-85% for fewer than three successive reconstitutions,
    - Companies ranked between 98-99% for fewer than three successive reconstitutions.
  - The following companies are assigned to the micro-cap size segment:
    - Companies ranked between 98-99% for three successive reconstitutions,
    - Companies ranked below 99%.
- Companies currently in the micro-cap size segment have their post-reconstitution size band determined as follows.
  - o The following companies are assigned to the mega-cap size segment:
    - Companies ranked in the top 70% of the eligible universe.
  - The following companies are assigned to the mid-cap size segment:
    - Companies ranked between 70-85%.
  - The following companies are assigned to the small-cap size segment:
    - Companies ranked between 85-97%,
    - Companies ranked between 97-98% for three successive reconstitutions.
  - The following companies remain in the micro-cap size segment:
    - Companies ranked below 98%.

#### 3.3.3 Market Capitalization Inclusion Levels

Following the assignment of companies to size segments, a market capitalization inclusion level is determined for each segment. The market capitalization inclusion level for a size segment is set equal to the USD value of the smallest company in the size segment as at the cut-off date. The market capitalization inclusion levels are used to determine the eligibility of new companies and also to set minimum free float market capitalization requirements as per section 3.4.1 below.

## 3.4 Investability Screens

To create an investable index, investability screens are applied to each eligible security in the Index Universe to produce the Provisional Index.

#### 3.4.1 Minimum Free Float Market Capitalization Requirement

With effect from the March 2023 reconstitution

To be included in the FT Wilshire 5000 Index Series, the free float market capitalization of a newly eligible security in the large- and small-cap size segments must be at least 30% of the market capitalization inclusion level for that size segment. To be included in the micro-cap size segment, a newly eligible security must have a free float market capitalization of at least \$25m. For example, for a newly eligible security to be assigned to the large-cap size segment, it needs to have a free float market capitalization of at least 30% of the market capitalization inclusion level for the large-cap size segment; if the security fails to meet this threshold, it will be excluded from the FT Wilshire 5000 Index Series.

For an existing constituent to remain in the same large- or small-cap size segment index, its free float market capitalization must be at least 20% of the market capitalization inclusion level for the corresponding size segment. For an existing constituent to remain in the micro-cap size segment, it must have a free float capitalization of at least \$20m. If an existing constituent has a size segment change, it is treated as a newly eligible security for its new size segment.

#### 3.4.2 Minimum Liquidity Requirement

With effect from the March 2023 reconstitution

To be included in the FT Wilshire 5000 Index Series, a newly eligible security in the large- and small-cap size segments must have an annualized monthly median traded value ratio of at least 15%. An existing constituent must have an annualized monthly median traded value ratio of at least 10%. To be included in the micro-cap size segment, a newly eligible security must have an annualized monthly traded value ratio of at least 7.5%, and an existing constituent must have an annualized median traded value ratio of at least 5%.

The monthly median traded value ratio is defined as the median daily traded value in a month, multiplied by the number of days the security traded during that month, and divided by its month end free float market capitalization. The monthly median traded value ratio is calculated for each of the three calendar months before the cut-off date, excluding the months during which the security has traded for less than 10 days. Finally, the average of the available monthly median traded value ratios is taken and multiplied by 12 to arrive at the annualized monthly median traded value ratio.

To calculate the daily traded value, the trading volume from eligible stock exchanges (as per Section 2.3) is aggregated for each security.

## 4 Quarterly Index Rebalances

#### 4.1 Rebalance Dates

In addition to the semi-annual reconstitutions in March and September, the FT Wilshire 5000 Index Series is rebalanced in June and December. The data cut-off date is the last business day of the month prior to the rebalance month. Rebalance changes are implemented after the close of business on the third Friday of the rebalance month.

## 4.2 Index Shares Updates

In June and December, constituent shares outstanding and float factors will be updated if the cumulative impact of corporate events since the previous semi-annual reconstitution changes a constituent's index shares (shares outstanding x float factor) by more than 10%.

## 4.3 Inclusion of Newly Eligible Companies

In June and December, new companies, such as IPOs that failed to qualify as fast entrants (see below), that meet the index eligibility requirements in Section 3 are added into the FT Wilshire 5000 Index Series. They are assigned to their corresponding size segment indexes based on the market capitalization inclusion levels determined in the previous semiannual reconstitution (Section 3.3.3).

## 4.4 Removal of Illiquid Constituents

In June and December, an existing constituent will be deleted if it has more than 10 non-trading days in the three calendar months up to the cut-off date.

## 4.5 Removal of Securities that Cease to Trade on an Eligible Exchange

Securities that cease to trade on an eligible exchange during the course of the quarter, for example because they move to OTC or pink sheet trading, are removed in conjunction with the quarterly rebalance at the OTC price where feasible, or at zero price if no reliable OTC price can be determined.

## 5.1 Fast Entry Additions

Large IPOs that meet the eligibility criteria set out in Section 2.1 are eligible for early inclusion in the FT Wilshire 5000 Index Series if the company's full market capitalization exceeds twice the full market capitalization inclusion level for the mid-cap size segment as defined in Section 3.3.3.

In addition, the free float market capitalization of the IPO must exceed 60% of the corresponding full market capitalization inclusion level.

The fast entry addition will be implemented after the close of business on the tenth day of trading if it satisfies the above criteria based on the closing price on the first day of trading.

IPOs that do not qualify as fast entrants to the index will be considered for inclusion at the next rebalance (Section 4.3).

#### 5.2 Intra-Rebalance Deletions

#### 5.2.1 Companies that Cease Trading

Where circumstances permit, a security that is due to cease trading, for example because of acquisition or impending bankruptcy, will be removed from the index on or before the last day of trading.

Constituents that cease trading without the provision of adequate notice to allow their removal from the index, and where no tradable price can be determined, will be removed at a nominal price of \$0.01.

#### 5.2.2 Ineligible Spin-Off Securities

If an existing constituent spins-off an ineligible security, for example a debt security or digital asset, that security will be removed with notice after its settlement date. If a reliable price can be determined, that price will be used to exit the security; otherwise the security will be removed at a nominal price of \$0.01.

## 5.3 Corporate Actions and Events

The FT Wilshire 5000 Index Series is maintained to take account of corporate actions and events including takeovers, mergers, spin-offs, and suspensions from dealing. The treatment of corporate action and events is set out in the Wilshire Indexes Equity Index Calculation and Corporate Events Guide.

This index methodology document should be read in conjunction with the following index policies.

## 6.1 Wilshire Indexes Benchmark Approval, Change and Cessation Policy

This document describes the procedures that Wilshire Indexes follows for approving construction of a new index; for changing the methodology of an existing index, including the circumstances when a proposal will be put to consultation; and for discontinuing an existing index.

## 6.2 Wilshire Indexes Policy for the Exercise of Expert Judgement

This document describes the circumstances in which Wilshire Indexes will exercise expert judgement and the principles that will be followed in such circumstances.

## 6.3 Wilshire Indexes Error Correction Policy for Equity Indexes

This document summarizes the approach Wilshire will adopt when correcting errors of index calculation and of index composition including the circumstances when an index will be corrected on a go-forward basis and when an index will be restated historically.

## 6.4 Wilshire Indexes Queries and Complaints Policy

This document sets out the mechanisms by which index users and other stakeholders can submit queries, for example in connection with a data item used in the calculation of an index, or make a complaint about an index management decision, for example in connection with the treatment of a corporate event or a classification decision. The document includes the steps that Wilshire Indexes will take in considering the query or complaint.

# Appendix A: Benefit Incorporation Countries

The following countries are considered Benefit Incorporation Countries for the purposes of Section 2.3.

Bermuda

British Virgin Islands

Cayman Isles

Gibraltar

Guernsey

Isle of Man

Jersey

Marshall Islands

## Important Information

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